GLOBAL LIVESTOCK CRSP

Rectifying Distributionally Regressive Microfinance Systems in Northern Kenya

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The absence of financial savings and credit access is widely cited as an obstacle to poverty reduction in the rangelands of east Africa. The well-known successes of microfinance initiatives in many parts of the world hold out the promise of scale-appropriate financial services for people traditionally excluded from financial markets, such as pastoralists in northern Kenya. Yet we find that although poorer households are indeed more likely to participate in Financial Service Associations (FSAs) operating in Marsabit District, the rules governing credit access lead to high rates of default by relatively richer borrowers, leading to problems of solvency for the financial institutions and ultimately to a regressive redistribution of wealth from poorer savers to wealthier borrowers who default on loans taken out from the FSAs. Some relatively straightforward changes in lending rules could remedy this unintended and unfortunate result.

Background

Pastoralists rely heavily upon livestock to accumulate and safeguard their wealth. Yet holding livestock as the primary, if not the sole, asset exposes pastoralists to a great deal of risk, not only from disease outbreaks and low and variable rainfall, but from wildlife attacks, as well as inter-clan and intra-tribal livestock raids. Desta (1999) calculates a latent demand for savings and financial services among pastoralists of the Borana Plateau in southern Ethiopia and recommends the introduction of financial services to the region. Given the fees typically associated with financial savings in commercial banks, however, deposits of less than about 25 goats' equivalent offer negative rates of return, on average, and even deposits in excess of that generate expected returns significantly below those of livestock assets (McPeak forthcoming). Microfinance savings alternatives thus offer pastoralists some capacity to diversify risk and perhaps to enhance non-pastoral investment as well.

Between 1999 and 2001, K-REP Development Agency (KDA) opened five FSAs in Marsabit District to provide informal financial services to pastoralists. The FSA differs from some other microfinance models in that the institution is self-financed through equity capital raised from the local community, loans are issued to individuals as opposed to groups, and loan size is proportional to investment (Jazayeri, 1996). While popular microfinance models such as the Grameen Bank rely on external funds to finance loans, FSAs raise capital by selling equity shares to the local community. Members whose loan applications are accepted by the FSA's democratically-elected Board of Directors borrow from the community's investment. Principal repayments replenish the loan fund, interest and penalties collected augment it, and loans in default decrease the fund. The financial position of the FSA is reflected in share value, calculated annually by the KDA audit division. Since members share the profits and losses resulting from FSA operations, membership into the FSA, indicated by the purchase of one or more shares, is equivalent to an equity investment.

The FSA model assumes that the profit motive induces members in general, and the Board of Directors specifically, to protect the community's equity investment by harnessing local knowledge to screen out bad credit risks and exerting social pressure to ensure loan repayment. FSAs extend loans to individuals, relying upon board members to deny loan applications submitted by members with a proclivity to renege on their debt, as well as the general membership to collectively guard their equity investment by closely monitoring those who borrow. In contrast, the Grameen model requires participants to form groups prior to loan disbursement and holds the entire group responsible for loans to its individual members, in order to protect the bank against bad credit risks and moral hazard through joint group liability. FSAs formed after 2000 incorporate elements of group lending into loan design, however variation in implementation is observed at the FSA level.

Loan size determination constitutes another critical difference between FSAs and some other microfinance designs. FSA loans are directly proportional to equity investment, as opposed to the popular practice of progressive lending whereby loans start small and increase in subsequent rounds of loans conditional upon proper repayment. As a result, those who can afford to invest greater amounts in the FSA enjoy access to larger loans. This feature of the FSA was designed to stimulate investment from the community, enlarging the loan fund available to members.

Major Findings

Using data collected from 282 FSA members and 292 nonmembers from thirteen FSAs in three districts of Kenya, including four FSAs in Marsabit District, we find that relatively poor households are more likely to purchase FSA shares than are wealthier households. In this sense, FSAs extend accessible financial instruments to the poor.

However, among those who self-select into FSA membership, the relatively wealthy purchase more shares than do the relatively poor. Sixty percent of FSA members own only a single share. Since loan size is limited by shareholdings, wealthier members can borrow more from the FSA, irrespective of creditworthiness.

Table 1 divides loans accessed by members into share holding categories. Of the 180 members who own a sole share, only 12 percent took out a loan. In contrast, of the 70 members who hold between two and five shares, 36 percent borrowed from the FSA, as did 64 percent of the 48 members holding more than five shares. Not only do those with larger shareholdings tend to borrow more frequently than do those with only one share, they also borrow at larger amounts, since current FSA rules set borrowing limits as a function of shareholdings. Seven members owning greater than ten shares a piece received eleven loans worth 26 percent of total loan value issued by all the FSAs. Less than 9 percent of the members received more than 48 percent of all the loaned funds. Although the poor are more likely to become FSA shareholders, wealthier FSA members are more likely to take out loans and the loans are, on average, significantly larger. The value of the poor's equity investment in FSAs thus depends fundamentally on the loan repayment performance of their relatively better-off neighbors.

To understand this performance better, we studied the details of every one of the 901 loans issued by ten FSAs, including all five FSAs in Marsabit District. Table 2 depicts loan repayments by loan size. Loans of 1,200Kshs or less (the maximum loan available to 60 percent of members who own only one share) defaulted at rate of 39 percent. Loans of 15,000Kshs, available only to the wealthiest 3 percent of FSA members, defaulted at a rate of 53 percent. Overall, 41 percent of loans at least partly defaulted, leading to substantial losses of share value (Osterloh 2001, 2004). Clearly shareholdings, though strongly correlated with a household's wealth and cash income, is not a good indicator of a member's propensity to repay.

High rates of default on large loans have serious repercussions for the financial viability of FSAs. Table 3 illustrates distribution of loans and loans in arrears by loan size. The 269 smallest loans of 1,200 Kshs or less represent a mere 7 percent of FSA share value disbursed as loans. In contrast, the 200 loans greater than or equal to 10,000 Kshs comprise 60 percent of the principal borrowed. The value of the principal in arrears of the 20 loans greater than 15,000 Kshs in default (286,006 Kshs), is comparable to the total principal paid out in the smallest 269 loans (304,450 Kshs). The delinquent principal of these twenty large loans in default represents 14 percent of the total share value of

Table 1: Loans and loan values across shares.

SHARES	Number of Members	% Members	% Members Borrowing	Number of Loans	Value of Loans (Kshs)	% Value of Loans
1	180	60%	12%	25	39800	9%
2	37	12%	30%	18	32500	7%
3	23	8%	39%	11	42500	9%
4	10	3%	40%	7	25500	5%
5	13	4%	62%	12	56400	12%
6	8	3%	63%	8	47400	10%
7	3	1%	67%	2	15400	3%
8	3	1%	67%	3	22200	5%
9	3	1%	67%	2	22000	5%
10	7	2%	57%	9	40000	9%
10+	11	4%	64%	11	123000	26%
TOTAL	298			108	466700	

Table 2. Loans in default across loan size.

LOAN SIZE (Kshs)	1,200 and less	up to 3,600	more than 3,600
Shares Required for Loan	1	2 to 3	4 or more
Number of Loans	269	248	384
Loan Value, Kshs	306,450	667,150	3,662,200
% of Total Loans Disbursed	7%	14%	79%
% Loans in Arrears	39%	39%	45%
Value in Arrears/ Total Value	26%	25%	28%

the ten FSAs combined. FSA history suggests that a few large, delinquent borrowers can threaten the viability of the institution.

How do we explain such significant rates of loan default given that the industry standard as set by the Grameen Bank hovers around two percent? Microfinance relies upon communities to exploit indigenous knowledge about participants' credit-worthiness to screen out borrowers with high ex-ante levels of risk. However, fewer than three percent of loan applications among northern FSAs are rejected, providing scant evidence of loan screening by board members. In addition, regular loans issued after review and approval by the Board of Directors default at the same rate as emergency loans issued at the discretion of the Manager, further corroborating the observation that the current loan screening process is ineffectual.

Mude (2003) considers the effect of social norms upon FSA board member incentives to screen loan applicants and monitor borrowers. In the context of the study area, as well as in other poor rural areas frequently targeted by microfinance initiatives, the norm of assisting those who request aid strongly colors social interactions. Mude theorizes that FSA Board Members responsible for loan screening and delinquent loan collection have little incentive to screen out poor credit risks and to pursue defaulters if the disutility personally borne by board members for denying assistance or harassing defaulters for loan repayment is large. In particular, if these social costs to the board members are greater than the erosion of share value resulting from loans in default, the cost of which is divided amongst the entire FSA membership, then the decision to extend loans to risky borrowers is individually rational for the board members. If social status and wealth indicate capacity to reciprocate assistance in the future, then the social costs of refusing large loans to the relatively rich are higher than refusing poorer members smaller loans, and board members accrue social capital by granting and/or neglecting to collect big loans. Mude's model explains the prevalence of loans amongst large shareholders and the high rate of loan application acceptance observed at FSAs as a result of social pressures which lead to ill-conceived loans supplied to relatively wealthy, more influential borrowers.

In conclusion, although the relatively poor are more likely to become FSA members through share purchases, relatively wealthier members are more likely to purchase multiple shares and to borrow from FSA equity capital. Since shareholdings determine loan limits, the relatively wealthy take out larger loans. They also default at a somewhat higher rate than do poorer borrowers who take out smaller loans. As a consequence, under their present design, northern Kenyan FSAs redistribute wealth regressively from equity shares purchased by the poor through loans taken out by, and defaulted on disproportionately by, better off households.

Practical Implications

The distributionally regressive effect of current FSA savings and lending practices could likely be rectified through modest changes to loan rules. In particular, it would help to redesign the loan distribution mechanism by issuing small loans to new borrowers and using initial loans to gather information about the members' propensity to repay. Reserving larger loans for those with established credit repayment histories, might well reduce loan default rates and better safeguard the assets of the poor. To increase the loan repayment rate, rigorous application of the group lending paradigm would transfer costs of screening and monitoring from the Board of Directors to lending groups and create group incentives to assure member loan performance.

Further Reading

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The GL-CRSP Pastoral Risk Management Project (PARIMA) was established in 1997 and conducts research, training, and outreach in an effort to improve welfare of pastoral and agro-pastoral peoples with a focus on northern Kenya and southern Ethiopia. The project is led by Dr. D. Layne Coppock, Utah State University, Email contact: lcoppock@cc.usu.edu.

The Global Livestock CRSP is comprised of multidisciplinary, collaborative projects focused on human nutrition, economic growth, environment and policy related to animal agriculture and linked by a global theme of risk in a changing environment. The program is active in East Africa, Central Asia and Latin America.

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